FOREIGN AGRICULTURE

Grading cotton, Tanzania

January 17, 1977

- Beef's Impact on Italy's Trade
- Argentina Stresses Oilseeds

Foreign
Agricultural
Service
U. S. DEPARTMENT
OF AGRICULTURE

FOREIGN AGRICULTURE
Vol. XV • No. 3 • January 17, 1977

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Villagers grading cotton in Tanzania, where the 1976 cotton crop is estimated to have rebounded strongly from the 1975 low. A report on cotton output in Tanzania, Kenya, and Uganda begins on page 12.

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The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Foreign Agriculture* has been approved by the Director, Office of Management and Budget through June 30, 1979. Yearly subscription rate: $34.35 domestic, $42.95 foreign; single copies 70 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. **Contents of this magazine may be reprinted freely. Use of commercial and trade names does not imply approval or constitute endorsement by USDA or Foreign Agricultural Service.**

Beef in Italy: Strong Demand Keeps Output, Imports Rising

JUST ABOUT the time Italian pasta and pizza began invading the kitchens and restaurants of the world, Italy embarked on its own quiet revolution in eating habits: The consumer "discovered" beef, launching a consumption boom that has had strong repercussions in the marketplace while perplexing an Italian Government committed both to cutting its trade deficit and satisfying domestic demand for beef and other meats.

Between 1961 and 1975, for example, Italy—

- Scored a nearly 50 percent gain in its beef and veal production (and 1975 was an "off year");
- Boosted by more than sixfold the imports of cattle needed to bring about beef expansion;
- Doubled its feedgrain imports—a sizable share of them going into cattle feed; and
- Shot from an insignificant U.S. feedgrain market to the fifth largest, buying in 1975/76 an estimated 2.73 million metric tons of U.S. feedgrains, compared with only 145,000 in 1960/61.

Still, Italy in 1975 imported 329,000 tons of beef and veal, or nearly one-fourth more than imports 10 years earlier and six times those in 1961, while its level of self-sufficiency in beef and veal was only 50 percent, compared with 80 percent in 1960. And the country today pays out about $1.7 billion a year for imports of beef and cattle, or half of its total outlay for livestock and meat imports—an increasingly worrisome drag on a country burdened by omnifarious economic problems.

For instance, in 1975—a relatively good year for Italy's trade position compared with a horrendous 1974 showing—Italy ended up with a $3.1 billion trade deficit, the bulk of it in petroleum and agricultural products. That year, the agricultural deficit was $5 billion, with $3.2 billion of the shortfall in livestock and livestock food products and about $1.7 billion in beef and veal and cattle alone.

The country also forked out some $730 million for net imports of other meat (mainly pork), $751 million for dairy products, and $1.4 billion for the feedgrains and oilseeds used in livestock feeds (feedgrains, soybean meal, soybeans for crushing, and nongrain feedstuffs such as vegetable oil residues).

The Italian Government has been attempting to offset this situation with a domestic austerity program and strict import requirements.

In May 1976, the Italian Government implemented a 3-month prior deposit scheme, under which importers had to deposit 50 percent of the cost of imports with the Bank of Italy for 3 months without interest. The scheme has been twice extended—and now is to be gradually phased out by April 15, 1977—while successive reductions in the value of the lira against other currencies have made importing more and more expensive for the Italians.

Also, in October 1976, the Government introduced a 7 percent surtax on purchases of foreign currency. This tax was reduced in December 1976 to 3.5 percent and will be eliminated entirely by February 13, 1977.

But in anticipation of restrictions, the trade contracted for larger imports of cattle, calves, beef, and veal during the first half of 1976. Cattle and calf imports during this period climbed 14 percent from those in the 1975 period to 1.1 million head (and their value gained 23 percent); feeder cattle imports rose 12 percent; and beef and veal imports jumped 21 percent to 129,000 tons (with their value soaring 32 percent).

Italian trade books will most likely show a slowing of these imports in the second half of 1976, but the question is what will happen to trade after the import deposit scheme is phased out?

Cattle producers are in a profitable position for the first time in several years, thanks to high domestic prices and their exemption from the 18 percent value-added tax charged by the Government on beef and veal retail prices. Consequently, the producers are willing, and able, to put up more money for feed and livestock even in the face of rising costs and strict Government import requirements. And these livestock producers form a sizable, highly visible and vocal, part of the

Clockwise from left: Production of fed beef cattle such as these is receiving increased attention in Italy owing to strong demand from consumers; an open bunker of chopped corn silage—a major factor in economic beef production; and cattle in one of the low-cost barns that have further strengthened the profitability of beef in Italy.

agricultural community, enjoying considerable political clout.

There has, nonetheless, been considerable talk about the problem and how to deal with it. Such discussions have focused on further revamping Italian livestock production and on Government measures to curb beef consumption. Proposals in the latter category include rationing, boosting the value-added tax on beef to 24-30 percent from the 18 percent now prevailing, closing butcher shops on alternate days, imposing import quotas, and banning the sale of fresh (but not frozen) meat one week every month. At the same time, the Government has frozen cost-of-living wage increases for some workers and moved to enforce collecting of income taxes.

These discussions and actions are being followed with interest by U.S. exporters, who have a big stake in Italy's maintaining a viable livestock industry. In fiscal year 1976, for instance, U.S. farm exports to Italy totaled $800 million, accounting for more than one-fourth of total U.S. exports to Italy and making Italy the sixth largest U.S. farm market. And around 70 percent of the farm trade value was in three commodities needed by Italian livestock producers for animal feeds—corn, soybeans, and soybean meal. (Soybean meal goes mainly into poultry and hog feeds, however.)

On the consumption side, the Italian Government so far has found it almost impossible to curb the consumer's appetite for meat, whether it be beef or other meats such as chicken and pork. High prices for beef and veal—and the consumer's reluctance to try the less-expensive beef cuts or even ground beef —have been recent disincentives.

But instead of lowering meat consumption the high beef prices have merely shifted consumers to cheaper meats such as poultry and pork—whose consumption is currently in a sharp uptrend. Thus, while beef consumption dipped from its 1973 high of 28 kilograms per capita to an estimated 23 in 1976, consumption of pork rose from 15.7 kilograms in 1973 to about 19 currently, and that of poultry meat went from 15.8 kilograms to 17.

The Italian liking for beef traces back to the early 1960's, when Italy, like other nations of Europe, was entering a period of rapid economic growth. The European Community—composed of Italy, France, West Germany, the Netherlands, Belgium, and Luxembourg —had only recently been formed and already was beginning to have an influence on Italian policies and customs. The country also was becoming more international in outlook, while a growing influx of tourists was bringing new ideas to Italy even as the tourists were being imbued with the "Italian way" of living.

In addition, rising wages were pricing domestic help out of the labor market, and housewives began looking for different and easy-to-prepare products, including beef and veal.

At one time about the only beef consumed in Italy was Manzo—beef from 3- to 15-year-old cattle culled from

traditional dual-purpose herds. Veal from dairy-herd calves also was important at the time, satisfying consumer demand for a tender mild-flavored meat otherwise largely unobtainable in Italy.

It was almost inevitable, however, that the increasingly affluent Italians should take to grain-fed beef, as some of their neighbors to the north also were doing. Their growing acceptance of beef began showing up in steadily climbing per capita consumption of beef and veal—14 kilograms in 1961, 17 in 1964, 20 in 1967 and 1968, 24 in 1969, and the alltime high of 28 in 1973. Consumption subsequently skidded to 23 kilograms in 1975 under the influence of high beef prices and the resultant shift to other meats.

Italian livestock producers—despite chronic domestic shortages of both feed and cattle—were quick to adopt new production techniques once the market potential for fed beef became evident. As a result, Italy has built up the largest, most modern beef industries in Western Europe, with a total cattle herd (including dairy cattle) currently estimated at 8.5 million head.

This change began in the early 1960's, when the Italian beef industry was still little more than an assortment of small family farms, selling off whatever was left after their own needs were met. But grain feeding concepts soon gained acceptance, and producers began to realize good profits.

By 1970, Italy was producing over 1 million tons of beef and veal, compared with just over 650,000 in 1961. Some 250,000 tons of this was from imported cattle, however, and the country was only about 60 percent self-sufficient in beef and veal compared with 80 percent in 1960.

During that 9-year period, the beef industry had gone through several sharp changes. Following initial demonstrations that beef production could be profitable, there was a sudden influx of new producers—including some industrialists who invested heavily in elaborate facilities and expensive management.

Later, some of these producers found themselves losing money. The price of corn had soared from $94 in 1971 to around $170 per ton under the impact of the European Community's protective Common Agricultural Policy for feedgrains and the cost of imported feeder cattle and calves was climbing in the face of scarcities of such animals.

For Italy long has had a shortage of cattle and calves, and the rising consumption and production of beef has been based on the premise that these animals always would be available from traditional suppliers. In the lead among such suppliers are West Germany, Eastern Europe, and France, each shipping about 500,000 head a year to Italy but all also feeding more of their own beef and using calf supplies domestically.

Periodic reductions in supplies from such nations, at a time of stair-stepping demand from Italy, have at times sent Italian buyers searching the market for feeder cattle. One such shortage in the mid-1960's coincided with a beef and cattle glut in the United States, creating a price situation under which U.S. producers could sell at a profit to the Italians. As a result, the United States shipped some 9,000 head of calves by air to Italy.

Changes in prices and other factors eventually lead to cessation of such exports. However, Italy remains a potential market for U.S. feeder cattle and calves and a traditional one for breeding cattle.

Reflecting this strong Italian need for cattle, the country's imports of live cattle and calves soared more than sevenfold between 1961 and 1972 from 345,000 head to a record 2.6 million.

As a result of the periodic hardships caused by high feed prices, cattle shortages, and other problems, many of Italy's marginal producers—lacking the economies of scale and the efficient production practices necessary to make a profit—were forced out of business. Left was a nucleus of fairly sizable (500- to 1,500-head) operations, many of which were producing beef in conjunction with corn for silage and other grains for livestock feeds.

With gains in beef prices lately, and Government incentives such as the exemption from the value-added tax, producers are again making money, so much so that they are continuing their traditional practices of relying on imported feeder calves for their cattle supply. However, they are also being encouraged by the Government to push cow/calf operations so as to boost domestic supplies of animals.

The Government, in the meantime, continues to grapple with the dilemma of how to satify the consumer's appetite for beef and veal without driving its trade balance further into the red.

—BEVERLY J. HORSLEY, FAS

U.S. Market Development Sparked Italy Meat Output

GIOVANNI ARTEGIANI, a farmer in northern Italy's fertile Po Valley, is the archetypal beef producer in modern Italy. On his 280-hectare farm near Verona, Artegiani produces corn for silage and runs an open feedlot that can handle 4,000 head of cattle—the first commercial lot of its kind in Italy. He also boasts a computerized feeding system and is venturing into cow-calf production and waste management—two equally unusual moves for Italian livestock producers.

At the same time, a "lean" hog industry is becoming an increasingly important supplier of pork products for the Italian consumer.

Both Artegiani and the hog producers are gaining assistance in their work from Foreign Agricultural Service cooperators in overseas market development activities—Artegiani from the U.S. Feed Grains Council (USFGC) and the hog producers from joint programs of the USFGC and the American Soybean Association (ASA). These producers, in turn, serve as prototypes for other Italian producers, helping acquaint them with modern livestock management and feeding techniques.

The dividends from this approach are severalfold:

- Italian livestock producers gain the expertise needed to maintain profitability at a time of rising costs;
- Italy benefits from expanding production of beef and pork; and
- U.S. feedgrain and oilseed exporters gain added customers in a market that recently has been importing over $500 million worth of U.S. feedgrains, soybeans, and soybean meal per year.

In addition, FAS participation in Italian livestock shows has given producers in that country increased exposure to U.S. livestock and feed ingredients.

Beef. Italian beef enterprises are considered to be among the most advanced in Western Europe and have become drawing cards for visitors from other nations hoping to boost their own

beef output. Many of these visitors will end up at the Artegiani farm—or one of the several others that receive technical assistance from the USFGC in return for the right to use them as demonstration projects.

On the Artegiani farm, for instance, the USFGC has been running a cost analysis on a cow-calf operation. The project involves 60 Charolais heifers purchased last July. It also is using the waste recycling concept—totally new to Italy—whereby manure is used as a livestock feed ingredient.

The results of this trial could be highly important to Italian livestock producers, who so far have not ventured into cow-calf operations to any great extent, despite the nation's chronic shortage of cattle and calves. The waste-management part also could be interesting, given the high cost of feed ingredients (manure mainly replaces roughage) and the environmental problems resulting when manure collection is in excess of the product's usability as fertilizer.

The USFGC also has been considering doing a trial on the difference of feeding animals in open feedlots such as Artegiani's versus confinement feeding—the traditional way of raising cattle in Italy.

Artegiani's feedlot—modeled after ones visited by his son while on a trip to the United States—has been in operation for about 2½ years. It serves as a preconditioning unit for imported feeder cattle, mainly from France, and has processed over 2,000 head with sharp reductions in the stress factors that annually take a heavy toll among Italian livestock. Mortality among stressed calves, in fact, has been reduced to 1 percent on Artegiani's operation, compared with 5-7 percent on similar units in France and as high as 10 percent on traditional livestock enterprises in Italy.

Other demonstration farms assisted by the USFGC have helped introduce into Italy the concept of raising animals in open-sided sheds, as opposed to past reliance on elaborate and expensive barns (called "cathedrals" in Italy). Other innovations include use of slotted floors and scraper systems for waste disposal and domestic production of corn for use as silage rather than as grain.

A typical beef operation in Italy's Po Valley today feeds calves from 60-80 kilograms to 450-550 kilograms, depending on the breed. In the initial preconditioning period, calves are fed milk replacer. Later they are weaned to rations that usually consist of corn silage, corn, sugarbeet pulp, soybean meal, and minerals. As is common in all such operations, increased amounts of feedgrains and soybean meal are added to the feed as the cattle mature.

A wide variety of breeds is seen on such farms, including Charolais crosses, Simmental, Holstein-Friesian, Limousin, and Brown Swiss.

Darwin Stolte, president of USFGC, says the Council became actively involved in Italian beef projects around 1965. After having established a good base of working relationships through the 3-P organization (equivalent to 4-H but with no age limitations), USFGC began helping producers set up demonstration barns.

"Most were simple pole-type structures that the farmers would build themselves," says Stolte. "The basic input that we made was promoting feeds that included in excess of 60 percent grain, trying to maximize the amount of meat produced in a given period of time, and providing the basic management assistance."

Also, feeding trials at the University

Top, U.S. soybean producers and their wives watch an Italian meat cutter reduce a "lean" hog carcass to its primary cuts. Above, lean pork promoted by the Italian Butchers Association, whose promotions have sparked greater consumption of pork from lean hogs.

of Padua were convincing Italian producers and researchers that there was benefit in high-grain feeding and that "you do not have to house cattle like people."

At the same time, there was a need to increase consumer awareness of the advantages of fed beef, although this awareness was growing independently as a result of rising incomes and increased exposure to American-style cooking. USFGC thus launched a project with Italian butchers "utilizing the then-developing supermarkets in major cities of Rome, Florence, and Milan and setting up some test pilot projects for the promotion of fed beef."

The response was so strong that demand exceeded supply, thereby attracting more producers to beef feeding and sparking a takeoff in both beef production and consumption.

> "... Italy may never become totally self-sufficient in beef, given the strong domestic demand."

Then in the 1960's, the European Community's Common Agricultural Policy (CAP) began to lift prices for feedgrains, triggering a crisis in the Italian beef industry. The high prices created an incentive to produce corn, while boosting the cost of livestock feed. Suddenly it looked as if the beef industry might falter, while Italy, with the fertile Po Valley as its granary, headed toward expanded production of corn.

Such a change could have had dire results both for Italy—since the viability of its livestock industry was threatened—and for the United States—with its big stake in the Italian feedgrain and oilseed markets. Consequently, the USFGC began encouraging Italian livestock producers to raise corn for silage in conjunction with their beef-feeding operations.

This effort eventually proved highly successful, and Italy—like many West European nations—is diverting increased area to silage production. Fueling this trend is the greater profit per hectare in the form of meat and the reduced risks of weather at harvesttime in marginal grain areas.

While this program did reduce beef producers' demand for imported feedgrains, it bolstered demand from the Italian poultry and hog industries.

Italian cattle producers now are looking into the possibilities of cow-calf operations. Stolte believes that, with assistance for such operations coming from the Italian Government, Italy could have confinement cow-calf production sometime in the near future.

He admits, however, that Italy may never become totally self-sufficient in beef, given the strong domestic demand. Consequently, he speculates that Italy could become an economical outlet for U.S. beef "if U.S. producers recognize they have to produce for the market, rather than get the market to take what they produce." This means, for one thing, leaner, less highly marbled beef than is usually consumed in the United States.

Pork. Up until recently, practically all of the pork produced in Italy was from so-called fat hogs, some weighing over 200 kilograms and often produced in conjunction with cheese operations in the Po Valley. The byproduct of these operations, whey, is the main ingredient fed by such farms.

But pork produced from these hogs has been usable only as hams and in sausage, salami, and other processed meats, leaving a large unfulfilled potential demand for fresh pork from lean hogs. To supply that emerging market—and simultaneously boost Italian use of feedgrains and soybean meal—the USFGC and the ASA have been giving assistance to producers and retailers of lean pork. For instance, the ASA and USFGC, in cooperation with Italy's Cassa per Mezzogiorno, sponsor seminars providing technical information on improving feeding efficiency through use of soybean meal and feedgrains.

The two groups also have been carrying out lean pork promotions with butchers aimed at encouraging Italian consumption of fresh pork. Thanks to such promotions, institutional users are featuring pork even in the summer, thus gradually overcoming the prejudice against pork consumption in hot weather—a holdover from legitimate fears when refrigeration was not widely available.

Romano Graziani, director of the USFGC program in Italy, says that altering Italian production and consumption habits has not been easy, but they are finally seeing some breakthroughs. "At one time, butcher shops weren't even allowed to sell fresh pork," according to Graziani, and "butchers finally had to resort to throwing away sausage in the marketplace to get the Government to change these restrictions."

Graziani says that pork consumption is now in a strong uptrend, rising by about a kilogram a year. In 1976, it totaled close to 19 kilograms per person—only 4 kilograms below the reduced beef consumption of 1975/76—and accounted for 40 percent of total red meat consumption.

He sees that rate of growth continuing until consumption stabilizes at 25-30 kilograms.

Italian pork production also is growing rapidly. It is believed to have totaled 840,000 tons in 1976—up 7 percent from the previous year's and about double the production level of a decade earlier.

How does this rising pork production and consumption translate into demand for imported feeds? A 1-kilogram increase in Italian pork consumption means a gain of 225,000 tons in hog feed requirements, according to Graziani, and that feed contains about 65 percent corn and 20 percent soybean meal. This, in turn, means corn consumption gains by 150,000 tons for every 1-kilogram increase in pork consumption.

Most of this added product could be expected to come from the United States, since it supplies the bulk of Italy's imports of feedgrains and soybeans.

> "Up until recently, practically all of the pork produced in Italy was from so-called fat hogs, some weighing over 200 kilograms...."

The pork production and consumption changes also have opened a market for U.S. hogs, with nearly 900 U.S. breeding hogs recently purchased by a group of Italian importers. The first shipment of these animals—460 head—is believed to be the largest single U.S. shipment of hogs, as well as the largest ever imported into Italy (see the January 3, 1977, issue of *Foreign Agriculture*).

—BEVERLY J. HORSLEY, FAS

Mexican Land Problems Could Boost Grain Imports

ALTHOUGH THE MEXICAN Supreme Court is still to be heard from on the legality of land invasions by rural workers (and Government actions that made them possible), other voices are being heard in assessment of the short-term effects of these takeovers on Mexico's current crop production. These range from Government sources who say the land ownership squabbles will have "no effect" on the size of current crops to representatives of private farmers' associations who say the effect will be a "real disaster."

Among the private landowners who will be affected one way or the other are those in the key producing States of Sinaloa and Sonora, who have been operating under difficult circumstances for the past year, the result of rural unemployment and the demands for land by the nation's campesinos, said to number as many as 4 million.

This land hunger led to a number of invasions of private property in these two states—as well as others—during the last year of the Echeverria Administration. Last summer, farmers and ranchers in Sonora and Sinaloa received word they would have their titles to some 40,000 hectares of irrigated lands in each State annulled by Agrarian Reform officials so that they could be turned over to campesinos. In addition, some 60,000 hectares of less productive, nonirrigated land in Sonora was to be affected.

It was claimed that these lands were illegally held because the owners controlled more than the 100 hectares of irrigated land allowed a single owner by Mexican law. (The maximum limit for rangeland is the amount that will support 500 cows, and there are various other limits on other types of land.)

The private owners obtained a court injunction against the takeover; but in the case of Sonora, the President decreed that the lands would be distributed to some 8,000 families. Assisted by Government surveyors, the campesinos moved out at 2 a.m. on November 19, and took possession of the land, buildings, and equipment. A Federal District judge has since ruled in effect that the takeover was illegal and the Mexican Supreme Court will probably rule this month.

Titles were not annulled in Sinaloa, but private landholders in late November agreed to turn over some 13,000 hectares (10,000 hectares of which are irrigated) to the Government for distribution. As of early January, this land had not been distributed. And as of mid-December most of the other invaded lands in both States had been evacuated by the campesinos.

Meanwhile, the Rural Credit Bank reportedly has provided some 300 million pesos in credit and technical assistance to the campesinos to plant the disputed land.

IN TERMS OF TOTAL cropland of some 16 million hectares, the disputed territory is not very large. However, some 38,000 hectares of land distributed in Sonora are prime irrigated lands in the Yaqui and Mayo River Valleys, often considered the breadbasket of Mexico, and accounting for a disproportionate share of the nation's wheat production and that of some other crops.

Uncertainty delayed seeding and probably affected land preparation and fertilization. Based on various reports from the region, it appears that wheat area will be down significantly—due in part to a continued lack of irrigation water supplies. Also, some of the wheat land may be planted later to safflower and cotton.

In regard to wheat, Sonora accounted for 54 percent of the nation's harvest in 1976, and Sinaloa another 16 percent. The Yaqui Valley alone accounted for about one-fourth of the crop. Goverment sources have tentatively estimated planted area for the 1977 harvest at 100,000 hectares in the Yaqui Valley, compared with earlier estimates of 135,000 hectares and last year's planted area of some 165,000 hectares. Average yields were 4.5 metric tons per hectare and somewhat higher in the fertile Yaqui Valley.

Winter wheat planting is generally completed by December 15. Considering the problems with squatters, late plantings, and limited water supplies, trade sources are projecting a decline of 400,000-700,000 tons in Mexico's 1977 wheat crop. (Very little spring wheat is harvested.)

Mexico was self-sufficient in wheat in 1975 and 1976 but is likely to need imports of at least 500,000 tons in the 1977/78 marketing year.

Safflower, soybeans, and cottonseed are Mexico's principal oilseed crops. Sonora and Sinaloa together account for 80 percent of the safflower production and 65 percent of the soybean. Production of both crops was off sharply in 1976 because of low reservoir supplies and some shifts from safflower to wheat acreage the previous fall. In southern Sonora, soybeans are often planted as a second crop after the wheat harvest. However, when water supplies are tight, as they were last spring, second crops are sharply curtailed. The availability of water for next spring's plantings will depend largely on the amount of precipitation this winter.

In the effort to meet campesino demands last spring, the Mexican Government began to incorporate 35,000 hectares of additional land into the irrigation district. This will stretch already tight water supplies even thinner and likely reduce the amount of second cropping in the future.

Safflower can be planted up until mid-February. Thus, if the tenure disputes can be resolved, and land invasions kept to a minimum, it is anticipated that safflower would be planted on the some of the area that did not get planted to wheat.

Oilseed supplies are already tight, reflecting the sharp reduction in soybean and safflower output. As a result, imports of as much as 450,000 tons of soybeans are projected for the year beginning September 1, 1976, compared with 133,000 tons in 1975/76.

Sonora and Sinaloa have also been major cotton producing areas, but output has declined sharply in the past 2 years, and some have cited the resulting unemployment as a major factor contributing to the land invasions. The cotton and vegetable crops are more labor intensive than those of wheat and oilseeds crops, which are mainly machine harvested.

With improved world prices, the Government is now encouraging increased cotton production, and planners are shooting for 400,000 hectares under cultivation in 1977, compared with just 250,000 in 1976. Some increases are likely in Sinaloa and southern Sonora,

Continued on page 16

New Government Plans Spur Argentine Oilseed Production

RESPONDING TO THE new Argentine Government's commitment to stimulating agricultural production, forecast oilseed plantings from September 1976 to midyear 1977 indicate a bumper year for harvested oilseed crops. However, a record year for oilseed production will present several problems as output exceeds crushing capacity and transportation and storage facilities.

Oilseeds available for crushing in 1977 are forecast at 3.7 million metric tons, up almost 29 percent over the million tons. Projections for most of previous year's estimated total of 2.9 the 1977 crops will depend on weather conditions between September 1976 and midyear 1977.

Relative prices will also be an important variable in the final outcome of these harvests. Argentine farmers measure their alternatives and shift emphasis from crop to crop or from crops to livestock on the basis of their perceptions of relative returns.

Current indications for plantings in late 1976 and early 1977 show a strong preference for crops over cattle, with increased wheat and flaxseed sowings already in and strong interest indicated soybeans, sunflowerseed, and grain sorghum.

The strongest interest is reportedly to be in soybeans. Famers are pleased with the prices received for the past year or so, and part of the soybean crop will be doubled-cropped with wheat. The 1977 soybean crop—to be harvested in March/April—is forecast at 1.2 million tons, compared with a record 695,000 tons in 1976.

Except for drought in the northern Provinces of Chaco and Formosa that could affect the early northern crop, early planting conditions for the second sunflowerseed crop were excellent as of late September. Conditions for sowing the third sunflowerseed crop—sown after the wheat harvest—are still uncertain.

The Office of the U.S. Agricultural Attaché is projecting a 10 percent increase in sunflowerseed plantings and a 10 percent increase in production in 1977 to 1.2 million tons—compared with 1.09 million in 1976. Should production estimates be realized, it would be a record crop for Argentina, the previous high being the 1.14-million-ton harvest of 1970.

The peanut crop—to be harvested in 1977—is expected to increase by 4 percent to 350,000 tons. Production is restricted to a rather limited area in the Province of Cordoba, and area and production are fairly stable from year to year.

The forecast for the 1977 cottonseed crop, to be harvested in the early part of the year, is still indefinite, owing to the fact that the cotton zones in the Provinces of Chaco and Formosa were still suffering a severe drought at the time of planting. Until further information is provided on the weather, the crop is still estimated to increase in line with the 20 percent rise in area to 300,000 tons.

Reports concerning flaxseed sowings and production are optimistic. Sowing conditions are ideal and the crop is forecast to rise 46 percent to 550,000 tons, while area increases 44 percent from the previous year.

The 1977 tung nut crop was affected by frost in August and losses are estimated at 30 percent, or down to 70,000 tons from 118,000 in 1976.

On the basis of the above forecasted levels of oilseed production, it appears there could be a record volume of seeds available for crushing in 1977. In total, actual edible oil production is forecast to increase 16 percent in 1977 to 530,000 tons, following an estimated increase of 25 percent during 1976. Actual inedible oil production should also increase a healthy 60 percent to 182,000 tons—a result of an 80 percent increase in linseed oil production.

Actual total oilseed meal production is projected to rise 36 percent to 1.5 million tons in 1977 following an increase of 13 percent estimated for 1976.

Based on projections for larger actual oil production in 1977, exports of oils should logically increase. However, projecting volumes of individual oils to be exported is impossible at this time because sales will depend upon price relationships. What is certain is the local market's strong preference for sunflowerseed oil; hence most of it will be consumed domestically. Peanut oil, on the other hand, is the least demanded oil on the local market and therefore produced principally for export. Cottonseed and soybean oils tend to be "swing" oils, that is, when domestic needs can be met with sunflowerseed oil, these would move into export.

Meal exports for 1977 are projected at 1 million tons, up 47 percent from the estimated 680,000 tons reportedly shipped in 1976. This projection assumes that local demand may rebound if the poultry industry recovers from its currently depressed state.

Any major problems arising from Argentina's bountiful oilseed crops are going to come at harvesttime. Machinery for harvesting is probably adequate, but there is a shortage of storage space and there may also be transportation problems. According to available estimates, Argentina's storage capacity is probably in the area of 13 million to 15 million tons, while the combined plantings in late 1976 and early 1977 of oilseed and grain crops are forecast to produce close to 30 million tons.

If the 3.7-million-ton oilseed harvest is realized, it could also exceed Argentina's crushing capacity—roughly 2.5 to 3.0 million tons—resulting in direct seed exports. A precedent was established in 1976 with the 150,000-ton export quota for soybean exports. Prior to this time, oilseed exports had been prohibited either by law or by prohibitive export taxes.

IF DIRECT OILSEED exports are authorized again in 1977, it is quite possible that an estimated 450,000 tons of soybeans may be shipped. But the final decision as to which seeds will actually be authorized for exports rests with the Government.

The possibility of oilseed exports other than soybeans are slim. Peanuts and cottonseed are grown in limited geographic areas where local crushing capacity apears to be sufficient. It seems unlikely that sunflowerseed exports will be authorized either, as the projected level of sunflowerseed is just slightly above historical levels and is more efficient to crush than soybeans owing to a higher oil content.

Strong opposition to flaxseed exports by crushers is anticipated. However, if prices decline sharply following the inability to absorb the large quantities of seed anticipated, the pressures to permit direct flaxseed exports will rise.

The force behind increased production and new exporting policies is the new Argentine Government that assumed power in March 1976. The policies of the past 30 years that tended to transfer wealth from the agricultural to the urban sector have been reversed.

The Government has made a commitment to farmers of prices in accordance with world price levels, realistic exchange rates, reduced export taxes, and a reduced role by the Government in the marketplace. In pursuing these policy objectives, the following actions have been taken with regard to oilseeds:

- Almost all domestic prices were freed, an area of particular concern to sunflowerseed oil, which had been price-controlled;
- Domestic free trade for sunflowerseed was resumed (previously the Grain Board was the sole buyer and seller);
- Exports of edible vegetable oils were again permitted;
- An export quota for 150,000 tons of soybeans was estabished;
- Restrictions on the export of oilseed meals were relaxed, although some rather meaningless limits were retained;
- Export retention taxes on meal exports were reduced from 39-46 percent to 10 percent, with a rebate of 10 percent available for peanut meal;
- Export retention taxes on most oils were reduced from 39 percent to 10-20 percent, with a 20 percent rebate available for soybean and tung oils;
- Argentina's Secretary of Agriculture has stated that there would be no support or minimum trading prices for flaxseed, sunflowerseed, soybean, or peanut crops to be harvested in 1977, as local market prices were considered remunerative;
- The Secretary of Agriculture also indicated that the coming 1976/77 wheat crop and five other grain exports would be negotiated at the free market rate of exchange and that the export retention tax would be 10 percent, leading to speculation that the same conditions will be granted for oilseed products.

The new Government has gone a long way in providing its promised emphasis on the long neglected agricultural sector and farmers are responding enthusiastically by increasing plantings of virtually all oilseeds.

—Based on a dispatch from
JAMES P. RUDBECK
U.S. Agricultural Attaché, Montevideo

USSR Plans To Meet Most of Its Own Sugar Demand In 1980

THE SOVIET UNION has announced ambitious plans to boost 1980 domestic beet-sugar production to a level that would take care of most of its needs. If the 1980 target can be met—and this remains open to question—the Soviets would be able to reduce sugar imports drastically.

The Soviet Union has a long-term commitment to import large amounts of Cuban sugar at about 65 cents per kilogram. But by meeting its 1980 refined beet-sugar-production goal, the USSR would be able to satisfy 98 percent of its needs from domestic sources. In the 1970-75 period, the Soviet Union produced only enough sugar to meet between 72 and 86 percent of total consumption.

Per capita consumption of refined sugar in the Soviet Union is planned at 43 kilograms in 1980. With Soviet population projected for that year at 267 million, this implies total planned consumption of 11.5 million tons of refined sugar in the final year of the decade. And with refined beet-sugar output in 1980 from domestically grown beets set at an ambitious 11.2 million tons, a deficit of only about 300,000 tons of sugar would result.

In sharp contrast, the apparent deficit in 1970-75 (total consumption minus domestic beet-sugar output) ranged from 1.3-2.9 million tons, for an annual average of 2.1 million tons. If the 1980 beet sugar target is met, its achievement would imply a drastic departure from the Soviet Union's import/domestic supply situation of the past 6 years, when annual average sugar imports were 2.2 millions tons and net imports were 1.8 million tons.

Irrespective of whether or not the Soviet Union meets its 1980 production goal, the target's announcement points up long-range USSR intentions, and the apparent inconsistency with existing USSR-Cuban agreements concerning sugar. The Soviets have allocated substantial funds to modernize and expand Cuba's sugar industry during the current 5-year plan, with the aim of boosting Cuban sugar outturn to 8-8.7 million tons (raw basis) by 1980, compared with an annual average of 5.6 million tons (raw basis) during 1971-76.

This raises the question of what would be done with the excess Cuban sugar if the Soviets do not need it. Cuba's exports have declined to two of its important markets—the People's Republic of China and Japan. And the current world price of sugar—at which Cuba would sell to its non-CEMA (Council for Economic Mutual Assistance) markets—is relatively low. Furthermore, negotiations on a new International Sugar Agreement, scheduled for 1977, may have a significant impact on the shape of the future world sugar market, possibly by limiting exports and reexports within certain price ranges.

Cuban access to the large U.S. sugar import market is blocked because of a complex array of legislative and legal impediments. Thus it seems possible that either the USSR or Cuba may have to modify its sugar plans.

The Soviet Union's 1980 sugar targets are quite ambitious when compared with its performance of the past decade. The 1980 plan to process 11.2 million tons of refined beet sugar is backed up by plans to procure 91.3 million tons of beets in that year and to attain an extraction rate during September-December 1980 of 12.6 percent. This implies that about 89 million tons of beets would actually be processed. But since Government procurements have historically run 89-94 percent of total production, this 1980 procurement plan points to total sugarbeet production targeted in the range of 97-103 million tons.

In the ninth 5-Year Plan (1971-75), actual annual procurements averaged 67.9 million tons—14.6 million tons or 18 percent below plan—and extraction rates were low. In the preceding plan period, however, procurement was at about the planned level of 74.7 million tons, and extraction rates were somewhat higher.

So the 1980 Soviet sugarbeet goals are unprecedented in the USSR's history. The closest the USSR has come to achieving the levels targeted for 1980 was during the record year, 1968/69, when sugarbeet production hit 94 million tons and procurement 84 million.

Record refined beet-sugar production was attained in 1967/68—9.6 million tons. Extraction rates equal to or exceeding 12.6 percent were common before 1965, but have not been attained since then.

Pakistan Finds Lucrative Farm Markets in Mideast

By AMJAD H. GILL
Foreign Demand and Competition Division
Economic Research Service

EAST PAKISTAN and West Pakistan severed political ties in 1971 to become Bangladesh and Pakistan. At that time the consensus of economists was that Pakistan would reel for many years from the loss of Bangladesh as an important source of, and market for, a large share of Pakistan's agriculture and industrial products. But since then Pakistan has moved into a number of Middle Eastern countries that have collectively replaced Bangladesh as a market for Pakistani goods.

As the same time, cotton, cotton products, and rice have become Pakistan's leading exports, replacing jute that was grown in East Pakistan and shipped to West Pakistan for export as jute or jute products. These accounted for about 45 percent of West Pakistan's total export earnings prior to the split.

Pakistan's exports to these Middle Eastern countries — Saudi Arabia, Kuwait, Bahrain, Abu Dhabi, and Dubai—have expanded phenomenally in the past several years, soaring from $64 million in 1973 to $168 million in 1974, to almost $248 million in 1975. At the same time, Pakistan has been successful in moving sizable exports into traditional markets such as Japan, Hong Kong, Singapore, and People's Republic of China, Sri Lanka, and Indonesia.

And although Pakistan is nurturing its trade with its export customers outside the Middle East, their share of Pakistan's exports has fallen in recent years from 47.7 percent in 1973 to 30 percent in 1975. The Middle Eastern countries have boosted their collective share from 9 percent in 1973 to triple that amount just 2 years later.

These Middle Eastern markets offer Pakistani exporters an almost unlimited opportunity to boost sales of farm products. The Middle East has comparatively few large areas of fertile land and its growing population will probably make necessary imports to meet much of its food and fiber needs for years to come Furthermore, these are rich states, well able to pay for their imports.

Rising world oil prices have brought them vast wealth. Saudi Arabia's petroleum earnings, for example, have risen from $5 billion in 1972 to an estimated $40 billion in 1976. Bahrain's petroleum revenues have risen from $200 million in 1971 to $1 billion in 1975, while Kuwait's went from $3 billion in 1972 to $11 billion in 1975.

A large part of the petroleum income flowing into these countries is being used to raise living standards. Diets are being improved and demand for consumer goods is high. In addition, considerable amounts of their capital are being invested in economic development schemes, which in turn generate a greater demand for foreign goods.

Since the Moslem Summit Conference in Lahore, Pakistan, in February 1974, Pakistan has been waging an ongoing campaign to further strengthen economic ties with its fellow Moslem countries. Escalation of exports to the Middle Eastern countries has been the result, a pace that probably will continue to pick up.

Pakistan's economic growth plummeted to 0.2 percent following the Pakistan-Bangladesh breakup in 1971, but recovery began immediately, and during the next year growth rose to 1.4 percent. In 1972, exports to all markets hit $420 million, nearly doubled by 1973, and set a record of $1.04 billion in 1975. Earnings from Pakistan's major agricultural commodities—cotton, cotton products, rice, leather, woolen carpets, fish, guar (a drought-tolerant legume), and guar products—some of which go to the Middle East in large quantities—increased from $727.6 million in 1974 to $743.7 million in 1975.

During 1975, Pakistan's leather exports earned $37.2 million in foreign exchange; woolen carpets, $45 million; fish, about $16 million; and guar and guar products, $16.5 million.

Cotton and cotton product exports—along with those of rice—brought in around 60-65 percent of Pakistan's foreign exchange earnings in 1974 and 1975. In 1975, foreign exchange earnings from cotton exports totaled $370 million, compared with $366.4 million in 1974. Pakistani cotton and cotton fabrics now are also going to markets in Nigeria, Tanzania, and a number of other African countries.

Rice exports earned a record $233 million in 1975, more than $25 million greater than the previous year's. Pakistan's major rice customers were a number of Middle Eastern countries (including Turkey), plus Sri Lanka, Bangladesh, and the Philippines.

Of the several kinds of rice grown in Pakistan, the Basmati variety is best known. Its cultivation is generally confined to areas in the Indus Valley in Punjab Province, but most of it is exported because Pakistanis cannot afford to buy it. Basmati rice is usually procured by the Government for a premium export price. This long-grain rice is very flavorful and has a distinctive aroma when cooked, features popular with Middle Eastern consumers. Pakistan usually exports around 250,000 tons of Basmati rice a year to the oil-rich Middle Eastern countries. They also import Pakistan's fresh vegetables and fruits, all kinds of nuts, spices, and some manufactured products, particularly textiles.

Saudi Arabia is Pakistan's most important Middle Eastern market, and its growth potential is great. In 1973, Pakistan's exports to that Kingdom were valued at about $12 million. The following year they mounted to $40 million, and to $63 million in 1975. Saudi Arabia is one of Pakistan's major Basmati rice customers, taking about $5.8 million worth in 1973 and $36.3 million worth in 1974. In the latter year, Pakistan was Saudi Arabia's second largest rice supplier, following the United States.

EXPORTS OF COTTON fabrics to Saudi Arabia rose in value from $1 million in 1971 to $3 million in 1973. Pakistani exports of cereal preparations (excluding rice) to this Middle Eastern country rose by 72 percent between 1971 and 1973, going from $157,000 to $270,000 in the 3-year period. Pakistani exports of finished textile articles and bolt materials to Saudi Arabia were worth $44,000 in 1971, reaching $187,000 in 1973.

Exports of tobacco products to Saudi Arabia went from $54,000 in 1971 to $157,000 in 1973. In 1975, Saudi Arabia also took cotton yarn, thread, tents, canvas, sterile absorbent cotton, and many other agriculture-related manufactured items.

In 1973, Pakistan's total exports to **Kuwait**—which must import practically all its food commodities—were valued at $8.6 million, rising to $14.7 million in 1974, and to $18.5 million in 1975. The rate of increase between 1973 and 1974 was 71 percent, followed by a 26 percent climb the next year.

Pakistani rice exports to Kuwait have varied from year to year, depending on Kuwaiti market conditions. In 1971, Pakistani rice exports to Kuwait were valued at about $8.9 million, but fell in 1974 to $1.5 million. By contrast, Pakistani exports to Kuwait of animal feed, especially cottonseed meal, rose from $593,000 in 1973, to almost $4 million in 1974. Other Pakistani exports to Kuwait in 1975 were fruits and vegetables, cotton fabrics, cotton bags, and carpets and rugs.

Bahrain's imports from Pakistan also vary from year to year according to Bahraini market conditions. In 1973, for example, Pakistan's exports to that country totaled $2.4 million. They rose sharply to $10.2 million a year later, but fell to just $4.3 million in 1975.

Pakistani rice exports to Bahrain also have fluctuated widely, falling from $6.6 million in 1970 to $4.2 million 2 years later, then reaching a record $10.2 million in 1974. The percentage share of rice in Pakistani exports to Bahrain varied widely, falling from 84 percent of the total in 1970 to 67 percent in 1972, and recovering slightly to 69.8 percent in 1974. Pakistan continues to dominate the Bahraini rice market, but it appears to be losing ground in the face of stiff competition from Thailand and Burma.

Pakistan's wide range of farm and industrial shipments to Bahrain include fruits and vegetables, hosiery, ready-made clothing, carpets, rugs, and footwear. Among its most important agricultural exports in 1973 were potatoes worth $3.7 million. Cotton fabric exports to Bahrain were valued at $192,000 in 1974.

In 1973, Pakistani farm and industrial exports to **Abu Dhabi** were valued at $3.6 million. The following year they almost trebled, reaching $9.9 million, and rose to a record high of $18 million 1 year later.

Major forces behind the upsurge in Pakistan's exports to Abu Dhabi were rising demands for rice, cereal preparations, fruits and vegetables, meat and meat preparations, chemical products, readymade textile and clothing items, carpets and rugs, and hosiery.

Pakistan is a major rice supplier to Abu Dhabi, providing 66 percent of its rice imports in 1974. In 1973, these exports were valued at $1.1 million and went to more than $4 million in 1974.

Pakistani exports to **Dubai** have been escalating by about $10 million a year for the past several years. In 1973, agricultural and industrial exports were valued at $10.5 million, reaching $30 million in 1975.

Rice was the most important export to Dubai in this period, going from $2.8 million in 1972 to $9 million in 1974. Rice made up 10 percent of all Pakistani exports to Dubai in 1973 and nearly half the total in 1974.

In 1972, Pakistan was the third most important rice supplier to Dubai with 17 percent of the market share, following Thailand with 50 percent, and Burma with 28 percent. Dubai might increase its imports of lower quality rice from Pakistan.

Dubai imports from Pakistan included much the same items imported by the other Middle Eastern countries—tobacco, fruits and vegetables (including canned items), cotton fabrics, and meat and meat preparations. They also included sizable shipments of bran and unmilled barley.

FAS World Coffee Estimate Boosted

The third estimate by the Foreign Agricultural Service (FAS), of world coffee production for 1976/77, is for total production of 62.7 million bags (60 kg each), up 1 percent from the second FAS estimate, but 15 percent below the 1975/76 production. Exportable production is estimated at 45.5 million bags, close to 2 percent higher than that previously reported (Exportable production represents total harvested production less estimated domestic consumption in producing countries.)

In North America, upward revisions in estimates for Mexico, Honduras, and Haiti more than offset somewhat smaller production for El Salvador and Guatemala. Estimates for Brazil and other South American countries remain unchanged for 1976/77, except for Ecuador, where the crop is down 100,000 bags from previous expectations. In Africa, an appreciable increase in the estimate of Zaire's production, plus higher estimates for the Malagasy Republic and Tanzania, are expected to increase total African production by almost 800,000 bags.

Changes in coffee production estimates in the North American countries were largely the result of the effectiveness of crop intensification programs, although drought in some parts of El Salvador in July and August resulted in a somewhat less optimistic outlook for the crop in that country. For Zaire, earlier production estimates are now believed to have been too conservative.

U.S. imports of green coffee during January-November 1976 totaled 17.9 million bags, compared with 19 million bags during the first 11 months of 1975, and average annual imports during the 5-year period, 1971-1975, of 20.8 million bags. Because of the sharp increase in green coffee prices following the July 1975 frost in Brazil, green coffee imports during January-November 1976 were valued at $2.3 billion, f.o.b. basis, compared with $1.4 billion for the same period in 1975.

U.S. industry coffee roastings through November 1976 totaled 17.3 million bags, or about 300,000 bags more than roastings a year earlier. Preliminary estimates of stocks of green coffee held by roasters, importers, and dealers as of November 30 were 2.98 million bags, down from 3.79 million bags at the end of November 1975.

Green coffee prices have increased sharply this year, with the International Coffee Organization (ICO) composite prices for November 1976 averaging $1.81 a pound, up from $1.64 in October, and more than double the average price a year ago. The price spreads between the four major types of green coffee growths also have narrowed sharply in recent months, partly because of a general scarcity of coffee on the market, as well as efforts by the producing countries to maximize returns on coffee exports.

Outlook Good for Syria's Imports of U.S. Farm Products

DESPITE THE country's 1975 balance-of-trade deficit of $755 million, Syria's imports of U.S. farm goods in 1976 are likely to rise owing to increased food requirements brought about by the country's expanding economy and the large numbers of refugees who have fled into Syria.

A significant aspect of Syrian agricultural trade has been the impact of civil hostilities in Lebanon during the past 18 months. Some of Syria's trade cannot be measured as much of it goes unreported owing to "border" purchases and sales made by Lebanese having to seek supplies and markets outside their own country.

In addition, large numbers of people —reportedly 1 million at times—have moved to Syria from Lebanon, drawing on available food supplies in the Syrian market.

With Syrian feed companies shipping as much as 3,000 to 4,000 metric tons of poultry feed to Lebanon per month during 1976, larger-than-planned imports of feed ingredients have become necessary. Syria has reportedly purchased 2,500 tons of U.S. poultry feed concentrates for delivery in 1976.

Although anticipated large imports of U.S. dairy cattle did not materialize in 1976, owing to the cancellation of a contract with a Canadian firm to construct and stock some thirteen 600-cow dairy farms for the Syrian Government, there is a good possibility that purchases of U.S. dairy cattle could resume in 1977.

Corn is another item for which Syria also has increasing need, and corn purchases in 1976 should be no less than the 10,000 tons of U.S. corn imported in 1975.

Although Syria was not expected to purchase any U.S. wheat in 1976 owing to a good domestic crop, imports of other agricultural items should continue to be strong. Title I financing will enable larger shipments of U.S. rice, which —when added to a commercial purchase of 20,000 tons—should total roughly 60,000 tons in 1976.

Syria also purchased U.S. soybean oil and tobacco in 1976 under Title I financing. Commercial purchases of U.S. tobacco were more than double 1975 imports valued at $12.3 million.

Although no purchases of soybean meal from the United States had been made by October 1976, Syria's increasing need of this vital feed ingredient could still be partially met by U.S. meal.

Another increase in U.S. imports of Syrian agricultural products is anticipated for 1976, with the value expected to total more than $4 million, compared with $2.1 million in 1975. Much of the increase is expected from considerably larger purchases of oriental tobacco. In 1975, Syrian exports of leaf tobacco to the United States more than doubled and constituted 96 percent of the U.S. total imports from Syria. The United States also upped its imports of Syrian sheepskins, lambskins, and wool in 1976.

U.S. exports to Syria have been enjoying continued growth for the past few years. Syrian imports of U.S. goods nearly tripled in value in 1975 owing to wheat and rice imports under Title I financing and larger imports of U.S. tobacco, cigarettes, and vehicles.

Unadjusted Syrian trade data for 1975 indicate that the United States supplied $109 million worth of agricultural and nonagricultural products, but was the destination for only $6 million worth of Syrian imports.

According to U.S. trade data for Syria, the following agricultural products (in order of importance) had a U.S. export value of more than $5,000 in 1975: Wheat, rice, tobacco leaf, yellow corn, soybean meal, shelled almonds, breeding beef bulls, dairy heifers, vegetable seeds, soybean oil, alfalfa seed, beverage bases, flavoring syrups, animal fats and oils, and feathers.

Syria's agricultural exports to the United States in 1975 were limited to

East African Community Cotton Prospects Mixed

COTTON PRODUCTION in the three countries that make up the East African Common Market—Kenya, Tanzania, and Uganda—seems to have gone in different directions in 1976. Kenya's output probably remained stable, that of Tanzania rose and Uganda's is expected to fall. Cotton exports will be governed by production.

Kenya's 1976 production is estimated at about 25,000 bales (480 lb net)—about the same level as 1975's, despite a 25-percent producer price increase. A production level ranging from about 23,000 to 25,000 bales has been maintained since 1969/70. Although Kenya's cotton yields are low, the crop's quality is generally good.

Because of their close price relationship, corn and cotton compete for resources, but in general corn production has been increasing at a greater rate than that of cotton. In some years, corn has been exported; in early 1975 cotton exports were suspended, although some cotton exports are again being made.

Cotton and corn producer prices have risen at much the same pace, with those for corn enjoying a slight edge. In 1976, cotton producer prices were 2.5 times the 1969 level, while producer prices for corn were 2.6 times those of 1969.

Kenya's sole buyer of cotton is the Cotton Lint and Seed Marketing Board, a quasi-Government body. At the present time the cotton purchase price is equivalent to about 40 U.S. cents per pound for lint.

The Kenyan infrastructure for cotton production is not as well developed as for corn. Kenya remains dependent on neighboring countries for cottonseed supplies and has done little or no research to develop its own cotton varieties. This may change in the future under pressure from the market.

Kenyan cotton consumption in 1973 (the latest data available) has been es-

only 19 items, with leaf tobacco representing most of the export value. Items with an export value of more than $1,000 included apricot preserves and paste, mint leaves, dried vegetables, preserved olives, and lambskins.

While Syria's agricultural imports were outpacing farm exports two to one, the country's 1975 balance of trade was building up a hefty deficit. Syria's 30-percent decline in export values of agricultural products was attributed to a severe drop in the export price of cotton—Syria's primary export crop. Nevertheless, cotton continued to dominate Syria's agricultural exports in 1975, accounting for 13 percent of the country's $943 million worth of total exports and 69 percent of agricultural exports. Cotton's place as the number one Syrian export was supplanted in 1973 by crude oil, which in 1975 accounted for $643 million—69 percent of total exports.

Five countries accounted for 85 percent of Syria's 102,000 tons of cotton exported in 1975. The USSR is Syria's major customer, taking 28 percent of cotton shipments, followed by the People's Republic of China (PRC), accounting for 20 percent of the market share. Other major purchasers of Syrian cotton were Iraq, Italy, and Czechoslovakia.

The outlook for exports of cotton during the 1976/77 marketing season is for a drop of nearly 15 percent. It is doubtful if export destinations will change greatly in 1976 from the 17 countries contracted with in 1975.

Syria's Cotton Marketing Organization reported that sales contracts for 1975/76 as of June 1976 totaled 115,764 tons.

During 1975, Syria's major agricultural import was raw sugar, valued at $100 million. Brazil and Cuba were the major suppliers. The PRC was Syria's major supplier of several important imports—rice, glucose, and canned meat. The United States dominated Syria's imports of wheat, leaf tobacco, and yellow corn. Brazil was the lone supplier of nearly $3 million worth of coffee, while Lebanon dominated the fruits, hides, and skins market.

—Based on a dispatch from
SHACKFORD PITCHER
U.S. Agricultural Attaché, Damascus

Poland Buys Argentine Beef

The Polish Government has recently purchased 10,000 tons of boneless beef from Argentina for delivery in 1977, according to press reports.

The beef—valued at US$11.5 million—consisted mainly of forequarters and boneless bull meat, costing roughly 52 cents per pound. The surprisingly high price paid by the Polish Government is reportedly 10 percent more than the original offer in early December.

It appears that the Poles are still interested in purchasing beef from Argentina and other sources. Trade sources have indicated that they would like to purchased an additional 10,000 tons of boneless beef from Argentina. However, it appears that the Argentine Government was unwilling to conclude a fixed price contract for more than 3 months in advance.

To date, Polish red meat purchases have amounted to 25,500 tons of boneless beef. In addition to the recent purchase from Argentina, Poland has also procured 8,300 tons from Australia and 7,200 tons from New Zealand.

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timated at only 0.6 kilogram (kg) per capita, but total consumption is estimated to have jumped by about 18 percent to some 55,000 bales in 1976. Use is expected to increase by another 15 percent in 1977 to about 63,000 bales.

About 85 percent of the estimated 40,000 bales of cotton imported into Kenya in 1976 came from Tanzania, an East African Community trading partner. These imports are duty free, but those from nonmember countries are subject to a 10 percent duty. Since 1967/68, Kenyan imports have shown a general upward trend. Exports in 1976/77 are expected to reach about 8,000 bales.

Kenya produces less than 50 percent of its textile needs. The Government favors a larger, more modern local textile industry, but it has not yet provided adequate protection against large amounts of textile output coming in from Hong Kong, Japan, and some other countries. A Kenyan cotton-spinning mill was opened recently to provide for domestic requirements, and another textile mill will be opened in 1977.

Between 1971 and 1975, **Tanzania's** production of cotton has trended downward. However, the 1976 output seems to have reversed this trend, and production—at 310,000 bales—is estimated to be 61 percent higher than the previous year's very low level. At that time it was necessary to leave some export contracts unfilled.

Major reasons for the recent production rise were improved weather in 1976 and relaxation of the 1975 policy that called for the diversion of land from cotton to corn production. Tanzania's yields are better than in Kenya or Uganda, but at only 1 bale or a little less of lint per hectare, they are generally less than the average for Africa.

The sole buyer of cotton is the Tanzania Cotton Authority. The selling price is set by the Government, and seed is provided to the farmer at no direct cost. The 1976 producer price has been equivalent to about 35 U.S. cents per pound for lint, a 33 percent increase over the 1975 price. But producer price increases have not been sufficient to cover rising production costs. Another producer price increase is expected for the 1977 crop, but if the announcement is slow in coming, it might cause farmers to delay sowing until the optimum time is past.

From 1969/70 through 1974/75, Tanzanian cotton consumption increased by about 18 percent per year. It dropped with the poor 1975/76 crop.

With consumption estimated at 65,000 bales this year, exports of 250,000 bales are expected in 1977. Major markets have been Taiwan, the People's Republic of China, Hong Kong, and Japan. Textile imports are now restricted, and sales taxes on locally made cotton textiles range from 55 to 60 percent.

Uganda has traditionally produced more cotton than Tanzania, but since 1972/73 Ugandan production has declined sharply, with low yields being partly responsible. The 1976 crop is estimated at only 115,000 bales. Production is expected to decline to a lower level in 1976/77.

Cotton apparently faces strong competition from food crop production. It is also reported that inadequate Ugandan transportation facilities have hampered distribution of cottonseed. The country's level of consumption has declined by 5 percent a year between 1969 and 1974. —Based on reports by
LAWRENCE A. WITUCKI, ERS;
and JAMES K. FRECKMANN,
U.S. Agricultural Attaché, Nairobi

U.S. and USSR Set Plans 1977 Agricultural Cooperation

By ROGER S. EULER
U.S.-USSR Secretariat
Foreign Agricultural Service

AMERICAN AND SOVIET representatives have largely agreed on exchange activities during 1977 under terms of the U.S.-USSR Agricultural Cooperation Agreement of 1973. This planning was accomplished at the Fourth Session of the U.S.-USSR Joint Committee on Agricultural Cooperation held in Washington in December. Team exchanges in 1977 will be reduced in number in order to permit some teams to make longer visits and allow more concentrated coverage of study topics.

At the Joint Committee Session, the U.S. delegation was headed by Richard E. Bell, Assistant Secretary of Agriculture for International Affairs and Commodity Programs. The Soviet representatives were led by Boris A. Runov, USSR Deputy Minister of Agriculture.

The Joint Committee reviewed the exchanges of teams, research results and other information, and plant and veterinary materials that took place in 1976. It was concluded that this cooperation is developing successfully in general, but improvements are needed and determination was expressed to further increase its effectiveness. Particular attention was given to the major problems involved in making team exchanges, and corrective steps were taken.

The Joint Committee also discussed and approved the reports and recommendations of the two subsidiary Joint Working Groups—on Agricultural Economic Research and Information, and on Agricultural Research and Technology—which met immediately prior to the Joint Committee Session.

The Economic Research and Information Working Group met first and reviewed its 1976 progress in the major project areas of agribusiness, forecasting, economic information exchange, and library exchange. Five team exchanges and other activities were recommended to the Joint Committee for 1977.

In the exchange of information on the current situation and outlook for production, utilization, and trade of major agricultural commodities, U.S. spokesmen presented updated information from the National Outlook Conference. The Soviets reviewed some preliminary 1976 production results but devoted half of their presentation to 1976-80 plans.

U.S. representatives repeated their previous requests for forward estimates of Soviet output and disposition of agricultural products. The Soviets again said that they need and have only their binding annual and 5-year goals and added that they would like more information on longer range U.S. agricultural plans.

The Research and Technology Working Group discussed its 1976 activities in the areas of plants, animals, soils, and mechanization. Three team exchanges were proposed for 1977, one each in the first three areas, with the understanding that team visits will be for longer periods and that attempts will be made to add one or two additional teams for each side during the year.

The five research and technology teams that will go from the United States to the USSR will study wind erosion forecasting, methods of selecting grain for winter hardiness, and the organization of large-scale livestock complexes. The U.S. economic teams will examine feed production and use, cooperation in organizing agriculture on an industrial basis, winter and spring wheat production, and the production, processing, and use of sugarbeets and products.

Consultative meetings of both Working Groups are planned for Washington in May and June 1977, and regular sessions of the Working Groups will be held in conjunction with the Fifth Session of the Joint Committee in Moscow in October-December.

Bilateral consultations on the U.S. and USSR agricultural situation and outlook, under the U.S.-USSR agricultural Cooperation Agreement, will take place in early summer and fall, 1977.

U.S. AND USSR TEAMS SCHEDULED TO BE EXCHANGED IN 1977 [1]

Month	*USSR to United States*	*United States to USSR*
March	Livestock Virology, Immunity, and Leukosis [2] CAPITAL INVESTMENT IN AGRICULTURE	FEED PRODUCTION AND USE [3] Mathematical Models in Wind Erosion Forecasting
April	— — — — — — — — — — — — — —	Selection for Grain Winter Hardiness
May	SEMINAR ON ROLE OF AGRICULTURE IN THE AGRO-INDUSTRIAL COMPLEX	COOPERATION IN ORGANIZING AGRICULTURE ON AN INDUSTRIAL BASIS
June-July	ECONOMICS OF LAND IRRIGATION	WINTER WHEAT AND FEEDGRAINS PRODUCTION
July-August	Wind Erosion Control Methods	SPRING WHEAT PRODUCTION
Aug.-Sept.	GRAIN STORAGE AND PROCESSING AGRICULTURE-FOOD INDUSTRY RELATIONSHIPS	— — — — — — — — — — — — — — — — — — — —
Sept.-Oct.	Soybean Growing for Feed	Organization of Large-Scale Livestock Complexes
October	— — — — — — — — — — — — — —	PRODUCTION, PROCESSING, AND USE OF SUGAR BEETS AND PRODUCTS

[1] Both sides hope that one or two additional teams each can be added during the year. [2] Research and technology teams. [3] ECONOMIC TEAMS.

India's Outdoor Grain Stocks Withstand Weather Stress

Despite the stresses of heat and heavy rains, covered stockpiles of wheat and rice stored at India's Sholavaram Airstrip (top)—near Madras—appear to be in good condition.

About 1 million metric tons of grain—including about 840,000 tons of wheat and 125,000 tons of paddy and milled rice—are stored at Sholavaram. This total amounts to 27 percent of all grain stored in India's three southernmost States of Andhra, Karnataka, and Tamil Nadu.

Stocks of foodgrains at Sholavaram are stored in 1-quintal bags (right) in 1,171 stacks of 170 tons (about 775 bags) each. There is little evidence of infestation triggered by moist monsoon weather, but there is some heat-related deterioration in the top layers of grain brought about by high temperatures generated under the black polyethelene covers. Fumigation is required more frequently at southern storage sites than in Haryana and Uttar Pradesh, where climatic conditions are more favorable for open-air storage.

Routine destocking and replenishment (below) are made periodically to minimize deterioration resulting from prolonged storage in the open. Last season's stocks should be moved into the public distribution system during the next 6-8 months.—ROBERT C. TETRO, Assistant U.S. Agricultural Attaché, New Delhi.

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GROWTH OF KOREAN BI[S]CUIT INDUSTRY BOOSTS WHEAT SALES

Western Wheat Associates biscuit consultant, Hugh Bright (right), assisting baking technicians at the Hai-Tai Confectionery Company in Seoul, Korea. Hai-Tai is the largest biscuit/cookie producer in Korea, and currently uses nearly 1 million bushels of wheat annually, mostly from the United States.

Biscuit and cookie production is booming in the Republic of Korea and output and usage of U.S. wheat by the industry both will have increased some sixfold between 1972 and 1977. Korea's output of these products puts it in third place in Asia behind Japan and India.

Four years ago, the first automatic biscuit production equipment was installed in three Korean biscuit plants. Now there are eight such companies with a combined total of 18 production lines, and another four lines are planned for 1977. In 1972, only about 16,000 tons of wheat were used by the Korean biscuit and cracker industry. Currently, some 100,000 tons of U.S. wheat are consumed annually by the industry, with usage expected to exceed 120,000 tons in 1977.

Hugh Bright, Western Wheat Associates (WA) biscuit consultant, stationed in Singapore, recently completed a 2-week assignment in Korea—the fifth such assignment since 1972. It is largely through his efforts and the followup by WA/Korea that the industry has reached its present level of production.

Also helping the tremendous growth of the Korean biscuit and cracker industry over the past 4 years has been a vast improvement in product quality and variety, and a doubling of per capita income, as well as a change in income distribution. In 1971, more than 71 percent of urban households had monthly incomes of less than US$75. By 1975, only 33 percent had incomes below that level.

In addition to the established biscuit companies, two baking companies have expressed an interest in producing biscuits on a small scale, and another company is planning to install a fully automatic biscuit line during 1977. The New York Baking Company, one of Korea's most progressive bakeries, is making preliminary plans to build a new plant on the outskirts of Seoul, solely to produce a luxury line of cookies.

The growth of the Korean biscuit/cookie industry helped to bring about calendar 1975 wheat purchases totaling more than 1.4 million metric tons, all from the United States, including 907,260 tons of Western White and 534,540 tons of ordinary protein Hard Red Winter. Through November 21, 1976, Korea had purchased 1.6 million metric tons of U.S. wheat. The total included 1 million tons of Western White wheat, 578,000 tons of Hard Winter Ordinary wheat, and 30,000 tons of Hard Red Spring wheat.

Wheat Associates, USA, a USDA cooperator, is the foreign market development arm of the U.S. wheat industry in Asia. WA/USA maintains overseas offices in Tokyo, Seoul, Taipei, Manila, New Delhi, and Singapore, with funds provided by U.S. wheat producers and by the U.S. Department of Agriculture.

Mexican Land Tenure

Continued from page 7

which were important cotton producing areas in the past but which have switched to grain in recent years.

While Sonora is the breadbasket, Sinaloa may be called the "Tomato Republic." It accounts for the bulk of the tomatoes and other fresh vegetables exported to the United States for the winter market. So far, the unrest seems to have had little effect on tomato shipments. Valued at US$67 million in fiscal 1976, tomato shipments during the early weeks of the 1976/77 season were about double those of the same period last season.

The president of the Horticultural Producer's Union stated in early December that "confidence had been reestablished" in the countryside and that the reduction in land invasions should permit a normalization of fieldwork.

*U.S. GOVERNMENT PRINTING OFFICE: 1976 241-410/14 1-3